

June 20, 1973

MEMORANDUM

TO: Drs. Hockett and Nordsiek

FROM: W. U. Gardner

SUBJECT: Grant 841
Progress Report #1 (October 1, 1972 - May 31, 1973)
Charles Mittman, M.D., City of Hope Medical Center, Duarte,
California.
"Hereditary Susceptibility to Bronchitis-Emphysema."

The progress made is largely an increase in numbers of patients from the Kaiser Steel Mill at Fontana, California, who have been examined and the development of STIC (serum trypsin inhibitory capacity) as a more rapid method for determining emphysema susceptibility. This may be packaged and made widely available for screening. It gives 2% false positives and a questionable area between 0.8 and 1.2 where results are questionable. This may be due to double active substances -- more than one inhibitor. Coke oven workers are highest risk for emphysema: 48% COPD (9 of 13 > 10 years, and 5 of 16 < 10 years).

Continuation: Mittman is on leave and will be in Israel. He is applying for a full-time technician there. He states Samaritan Jews reportedly have a high incidence of emphysema but other Jewish and Arab groups do not. He plans to continue his epidemiological studies in Israel and also do the screening and pulmonary functional testing in collaboration with physicians there.

At Duarte he will continue the pulmonary testing and screening for enzyme inhibitors adding several hundred more observations. He has a collaborating epidemiologist. From the report and continuation I do not feel too secure about the genetics and epidemiology. He has stated that there are other "familial" emphysema, possibly genetic, determiners of the disease than alpha-1 antitrypsin but, other than a "double ring," has no proof. He proposes to do studies on other steel mills but this is again vague. He proposes a vertical study at Duarte to assess predisposition to COPD and job assignments. He is making comprehensive pulmonary function tests on all. I would like to see more detail of Dr. Lieberman's input. I will be at Duarte in July and may learn more about the program and plans.

W.U.G.

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